

REMARKS

Please reconsider the present application in light of the above amendments and the following remarks.

Amendments to Claim 1 Address Examiner's Objection

The Examiner objected to Claim 1 due to a typographical error. The amendment to Claim 1 corrects this error, and resolves the objection.

All of the Subject Matter in Claims 8-13 and 16 is Supported by the Application As Filed

The Examiner rejected Claims 8-13 and 16 under 35 U.S.C. § 112, first paragraph, as containing subject matter not described in the specification as filed. Applicants respectfully traverse the rejection, and contend that the application as filed supports all of the claimed subject matter.

Claims 8 and 16

Claims 8 and 16 each recite, *inter alia*, "a cuff portion having a plurality of padded elements positioned around at least a portion of the circumference of said cuff portion and defining a peripheral forearm protector, each said padded element partially overlapping an adjacent padded element." The Examiner contends that this is not supported.

Applicants include below a marked-up Figure 3 from the application. In the specification, a padded cuff of the illustrated embodiment is referred to by reference number 114. For purposes of this discussion, Applicants have added reference numbers 114a and 114b to refer to two padded elements of the cuff 114. As such, the requirement for "a cuff portion having a plurality of padded elements positioned around at least a portion of the circumference of said cuff portion" is clearly supported by Figure 3. Further, padded elements 114a and 114b are positioned at a location on the glove that fits about a wearer's wrist, which is where the forearm meets the hand; thus, these elements "defin[e] a peripheral forearm protector" as recited. Lastly, as circled in the drawing, padded elements 114a and 114b clearly overlap one another. Thus, as between elements 114a and 114b, which are a "plurality of padded elements", Figure 3 satisfies the limitation, "each said padded element partially overlapping an adjacent padded element."

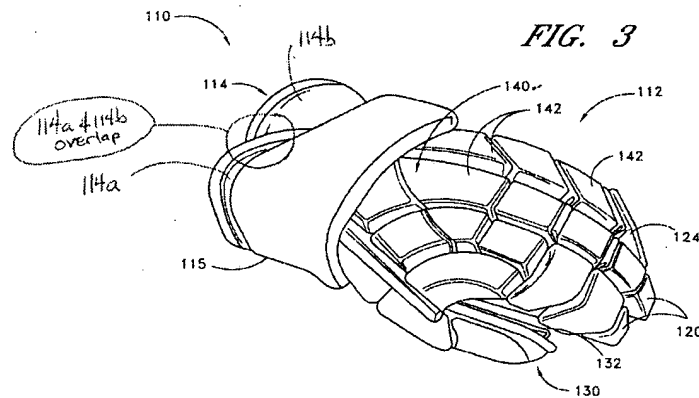
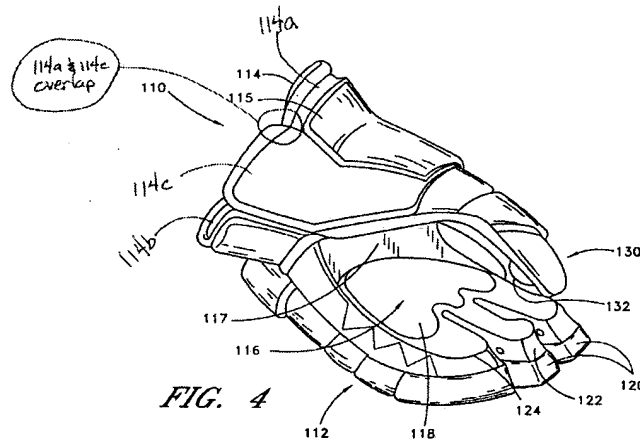


Figure 4, below, presents even further support for this limitation. Figure 4 additionally shows padded element 114c. As are elements 114a and 114b, element 114c is arranged on the wearer's wrist, but is more specifically on the palm side of the glove. Further, as circled in Figure 4 below, elements 114a and 114c overlap one another. As such, Figure 4 provides further support for the cited text of Claims 8 and 13.



Since the application as filed (for example Figures 3 and 4, specifically) clearly supports the limitations recited in Claims 8 and 13, Applicants respectfully request that the Examiner withdraw the rejection of these claims.

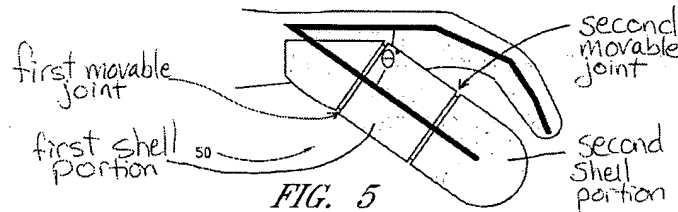
Independent Claim 9

Independent Claim 9 recites, *inter alia*, “ a first movable joint between said cuff portion and said first shell portion”. The Examiner contends that this is not supported.

The application as filed provides ample support for movable joints between the cuff portion and a first shell portion. For one example, Figure 5, which is reproduced below, shows the orientation of a substantially rigid articulating skeleton 50 relative to the wearer's hand and arm in one embodiment. In the illustrated embodiment, the skeleton 50 includes a first shell

Appl. No. : 10/820,371
Filed : April 8, 2004

portion and a second shell portion. A first movable joint (see also Figures 6-10) is arranged adjacent the first shell portion, and a second movable joint is between the first and second shell portions. By virtue of the cuff's 14 position at the wearer's wrist (see Figures 1-2), the "first movable joint [is] between said cuff portion and said first shell portion". As such, the application as filed provides clear support for this limitation.



Amendments to Specification Address Examiner's Objections Without Adding New Matter

The Examiner objected to the specification as failing to provide proper antecedent basis for a number of the claims. The specification has been amended to add some of the same language used in the claims in accordance with MPEP §608.01(o). These amendments are appropriate and supported by the original disclosure. These terms are alternates to, or supported by, the original specification language. More specifically, the amendments are mostly directed to using specific terms to refer to aspects of certain embodiments. No new matter has been added.

Paragraph [0001]

In accordance with the Examiner's suggestion, Applicants amended Paragraph [0001] of the specification to update the status of one of the priority applications, which has now issued as a patent.

Paragraph [0051]

As discussed above, the drawings clearly support the following limitation of Claims 8 and 16: a "cuff portion having a plurality of padded elements positioned around at least a portion of the circumference of said cuff portion and defining a peripheral forearm protector, each said padded element partially overlapping an adjacent padded element." Paragraph [0051] has been amended to add text discussing what is already shown in the drawings, and to refer to the well-known fact that the forearm and hand meet at the wrist.

Paragraph [0053]

The Examiner objected to the specification as not providing antecedent basis for the terms "first shell portion" and "second shell portion". Paragraph [0053] has been amended to

Appl. No. : 10/820,371
Filed : April 8, 2004

note that the skeleton 50 may also be referred to as a shell. This is consistent with the definition of “shell”, and the description of the structure (substantially rigid, fits over the thumb) and purpose (protection) of the shell. For example, in Webster’s Encyclopedic Unabridged Dictionary of the English Language, Thunder Bay Press, 1996, a relevant definition of “shell” is “a hard, protecting or enclosing case or cover.” (Webster’s, p. 1763; copy enclosed.)

Paragraph [0054]

In order to provide antecedent basis for variations of the term “hinge” in the claims, paragraph [0054] has been amended to correspond the “pivot points 62” to hinges. This is appropriate, as these terms may be used interchangeably. For example, attached page 903 of the Webster’s dictionary identifies the term “pivot” as a synonym for “hinge.”

Also, paragraph [0054] now clarifies that the sections 52, 54, 56 can be referred to as shell portions. This is appropriate because the sections are portions of the skeleton, which is also appropriately referred to as a shell. In the Office Action, the Examiner contended that there was no antecedent basis in the specification for “first shell portion” and “second shell portion”. Applicants submit that the amendments to paragraphs [0053] and [0054] provide sufficient antecedent basis, and that further amendments to add generic labels such as “first” and “second” are unnecessary.

Paragraph [0056]

As above, paragraph [0056] now compares “pivotably” to “hingedly”. Further, this paragraph has been amended to refer to the phalanxes of the thumb. This is appropriate, and does not add new matter, because it is well known that the human thumb includes such phalanxes, which are the bones of the thumb. (See Webster’s, p. 1451; copy enclosed). The other amendments to paragraph [0056] are also appropriate, as the physical structure of thumb phalanxes is well known and Figure 5 depicts the articulated skeleton 50 on the wearer’s thumb in a position so that the articulated skeleton sections 52, 54, 56 correlate with the positions of thumb phalanxes.

Paragraph [0060]

Paragraph [0060] has been amended to discuss in the text clear teachings shown in Figures 12 and 13. More specifically, Figure 13 shows that each extension 164 is at least partially exposed when the skeleton 50 is closed, and Figure 12 shows that the extensions are

Appl. No. : 10/820,371
Filed : April 8, 2004

substantially not exposed when the skeleton 50 is open. The figures clearly support the added text.

The above-discussed amendments to the specification add claim nomenclature to the specification. The nomenclature used in the claims is thus found in the specification in accordance with M.P.E.P. § 608.01(o). All of the amendments are based upon the original disclosure in the application as filed. No new matter has been added. Since proper antecedent basis for the claim terms is now found in the specification, Applicants respectfully request that the Examiner remove the objections to the specification.

Amendments to Drawings Add Reference Numbers

Figures 3 and 4 have been amended to add reference numerals 114a, 114b, and 114c, which point to elements of the cuff 114. No new matter has been added.

Gambee Does Not Anticipate Claims 9-13

The Examiner rejected Claims 9-13 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 1,951,902 to Gambee. Applicants respectfully traverse the rejection, and contend that Gambee does not teach or suggest all of the limitations of these claims.

Gambee teaches a finger and hand guard to protect an operator against injury when working on various types of machinery. The hand guard discloses finger units 10 for fitting the five fingers of the hand. Each finger unit 10 comprises a plurality of parts that are intended to protect certain portions of the fingers.

The finger and hand guard of the Gambee patent is specifically intended to be used in fine, precise work. Thus, the guard intentionally leaves most of the hand exposed. More specifically, the stated intention of the Gambee patent is to “expose the hand surfaces of the fingers and the hand to permit the free use of the hand and to provide the sense of touch in handling and feeding work pieces.” (Gambee Patent, page 1, lines 75-78). As such, Gambee *specifically teaches against enclosing the wearer’s hand*.

Gambee does not teach or suggest all of the limitations of Claims 9-13. For example, Gambee does not teach, *inter alia*, enclosing a human wrist and hand; a glove having both a dorsal side and a palm side; a cuff portion; or a hand-receiving portion.

Since Gambee does not teach or suggest all of the limitations of Claims 9-13, Applicants respectfully request that the Examiner withdraw the rejection of these claims.

Appl. No. : 10/820,371
Filed : April 8, 2004

Combination of Thurston and Sauriol

The Examiner rejected Claims 1-5, 8-13, and 16 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,272,849 to Thurston in view of U.S. Patent No. 5,946,720 to Sauriol. Applicants respectfully traverse the rejection and contend that the Thurston and Sauriol references are not properly combinable.

Thurston teaches a workman's glove that is specifically adapted to give protection against a violent blow to the hand (column 2, lines 13-14), yet still enable a workman to perform detailed work. For example, Thurston specifically sets out that the glove is to be "form fitting and flexible" so that it is easy to use and efficient in operation (column 1, lines 10, 20-21).

In order to accomplish its purposes, Thurston teaches a form fitting glove having steel plates 31 that are hinged together. In Figures 6 and 7, a tab 33 extends upwardly from the surface of one plate in order to overlap an adjacent plate to which it is hinged together. This construction provides an advantageous *balance of protection and dexterity*. For example, as shown in Figure 5, the steel plates are shaped so as to protect fingers against crushes, such as by a hammer (column 2, lines 19-20). However, the disclosure repeatedly emphasizes the need of the glove to be form fitting and flexible so as not to interfere with the movement of the wearer's finger joints so that the wearer can still work as a workman and manipulate and easily use tools and other objects.

Sauriol presents a hockey glove having improved flexibility characteristics relative to other hockey gloves. As with typical hockey gloves Sauriol discloses extensive and very thick padding throughout the dorsal sides of the thumb, fingers, hand-back and wrist portions of the glove. Traditionally, hockey gloves have been extremely thick, bulky and inflexible. Sauriol attempts to provide such a bulky glove, but "with finger portions that adapt to the anatomy of the player's hand and the natural position taken by the hand during play." (column 1, lines 8-10). Sauriol attempts to satisfy this desire by providing "flexion zones" 48a, 48b between thick padding segments 48', 48'', 48''' in the fingers of the hockey glove. The thick padded segments are still made of traditional hockey finger and back padding, which is made up of very thick pads adapted to absorb the energy of impacts (column 5, lines 2-3) such as impacts with another player's hockey stick. The thumb portion 18 of the Sauriol hockey glove also comprises the thick pad segments 54', 54'', and a flexion zone 56 between the thick pad segments to facilitate bending of the player's thumb. Notably, *Sauriol only contemplates thick traditional hockey*

Appl. No. : 10/820,371
Filed : April 8, 2004

glove pads, and does not contemplate rigid shells anywhere, much less in or around the finger sections. Further, as illustrated, the Sauriol cuff includes multiple elements that overlap one another and are quite bulky, as can be clearly seen in Figures 1-8.

The Thurston and Sauriol references, while appearing to both teach types of hand protection, are directed towards totally different uses, different environments of use, and different values. As a practical matter they share very little in common. There is no motivation to combine these references. In fact, the teachings of these references teach against such a combination. For example, as stated above, the Thurston glove places high value on its form fitting flexibility and its suitability to be used on a job for a workman. However, the Sauriol hockey glove is tremendously bulky. Thurston's purposes and disclosure teach against such bulkiness. Sauriol's intent is to improve the flexibility of the glove, but the fact remains that Sauriol's glove has a very narrow field of use: (1) grasping a hockey stick; and (2) protecting the wearer's hand against impacts during the game of hockey. The glove does not need and does not provide for any flexibility beyond these narrow uses. One can only imagine trying to pick up a nail from off the ground using the Sauriol hockey glove. Conversely, the Thurston glove is expressly form fitting and flexible enough for such a workman's operation. As such, Thurston teaches against any combination with Sauriol.

Further, Sauriol teaches against combination with the teachings of Thurston. More specifically, the thick, traditional hockey padding of Sauriol is expressly purposed to absorb impacts. Sauriol does not deal with the specific issue of crushing of a finger with a hammer. Rather, Sauriol is concerned with the impacts incident to hockey, which include swinging sticks of competitive players and the like. In contrast, the steel plates of Thurston, while distributing the impact forces of a hammer or the like in order to prevent catastrophic injury from unintentional contact, lack the padding requisite to absorb less-severe, but repetitive, intentional impacts while retaining the wearer's comfort. Such less-severe but repetitive intentional contacts are to be expected during the game of hockey, but not at a jobsite. Thus, the steel plate construction as used by Thurston would be unsuitable for use on a hockey glove as required by Sauriol.

Still further, Thurston teaches every finger, including the thumb, of the glove having steel plates inserted therein. In contrast, Sauriol teaches every finger, including the thumb, of the

Appl. No. : 10/820,371
Filed : April 8, 2004

hockey glove having very thick padding and a flexion member between thick finger pads, but makes no mention of any rigid member.

Applicants contend that nothing in either the Sauriol or the Thurston patents would teach or motivate a person of skill in the art to combine these references, as these references are fundamentally incompatible with one another, and as they are directed to different needs and values and different types of use. Accordingly, there is no motivation to combine the Thurston and Sauriol references.

Since there is no motivation to combine these references, Applicants respectfully request that the Examiner remove the rejection of these claims.

New Claims

New Claims 17-20 have been added by amendment. These claims are not copied from U.S. Patent No. 6,543,057 to Beland, as were Claims 1-5, 8-13, and 16. Each of the new claims depend from independent Claim 1, and support for these claims is found in the disclosure of the above-captioned application as filed. No new matter has been added. Applicants contend that these claims recite allowable subject matter and are in condition for allowance.

Conclusion

The undersigned has made a good faith effort to respond to the Examiner's objections and rejections as set out in the Office Action mailed April 6, 2005. If any issues remain or if any issues require clarification, the Examiner is respectfully requested to call Applicants' attorney in order to resolve such issue promptly.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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Webster's Encyclopedic Unabridged Dictionary of the English Language



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hind-shank (hɪndˈʃæŋk), *n.* a person or thing that hinders. [1400-50; late ME *hinder* (see *HINDER*), *-ANCE*]
hinderance (hɪndərˈæns), *n.* impediment, encumbrance, obstruction.
Syn. 3. impediment, encumbrance, obstruction, hindrance. **Ant.** 3. aid.
check; restraint. See **obstacle**. **Ant.** 3. aid.

hind-shank. See under **shank** (def. 4).

hind-sight (hɪndˈsaɪt), *n.* recognition of the realities, possibilities, or requirements of a situation, event, decision etc., after its occurrence. [1850-55; HIND + SIGHT]

hind-tit (hɪndˈtɪt), *Slang.* the worst or least valuable part; that left over after the best is taken or apportioned.

Hindu (hɪnˈduː), *n.* 1. a person, esp. of northern India, who adheres to Hinduism. —*adj.* 2. of or pertaining to Hindu or Hinduism. Also, **Hindoo**. [1855-65; *taining to Hindu or Hinduism* (adj.), equiv. to *Hind* (see *HIND*) + *-i* adj. suffix]

Hindu-Ar-ā-bic num'erals (hɪnˈduː arəˈbɪk). See **Arabic numerals**.

Hindu calendar, a lunisolar calendar that governs all Hindu and most Indian festivals, known from about 1000 B.C. and subsequently modified during the 4th and 6th centuries A.D. Cf. **calendar**.

Hinduism (hɪnˈduː ɪzˈəm), *n.* the common religion of India, based upon the religion of the original Aryan settlers as expounded and evolved in the Vedas, the Upanishads, the Bhagavad-Gita, etc., having an extremely diversified character with many schools of philosophy and theology, many popular cults, and a large pantheon symbolizing the many attributes of a single god. Buddhism and Jainism are outside the Hindu tradition but are regarded as related religions. Also, **Hindooism**. [1820-30; HINDU + -ISM]

Hindu-ize (hɪnˈduː ɪz/), *v.t.* -ized, -izing. to convert to or bring under the influence of Hinduism. Also, esp. Brit., **Hindu-ise**. [1855-60; HINDU + -IZE]

Hindu Kush, a mountain range in S Asia, mostly in NE Afghanistan, extending W from the Himalayas. Highest peak, Tirich Mir, 25,230 ft. (7690 m). Also called **Hindu Kush Moun'tains**.

Hindu (hɪnˈduː), *n.* **Maurice Gerschwin** (gɜːrˈʃən), 1891-1969, U.S. writer, born in Russia.

Hindu-stan (hɪnˈduː stæn/), *n.* 1. Persian name of India, esp. the part N of the Deccan. 2. the predominantly Hindu areas of India, as contrasted with the predominantly Muslim areas of Pakistan. Cf. **India**.

Hindu-stani (hɪnˈduː stəˈni), *n.* 1. a standard language and lingua franca of northern India based on a dialect of Western Hindi spoken around Delhi. **Abb.**: Hind Cf. **Hindi** (def. 2). **Urdu**. —*adj.* 2. of or pertaining to Hindustan, its people, or their languages. Also, **Hindostani**, **Hindostani**. [1610-20; < Hindi, Urdu < Pers. equiv. to *Hindustān* region of the Indus, Sind (Hindu HINDU + stān country) + -i suffix of appurtenance]

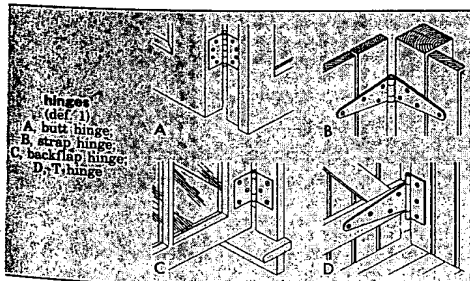
hind-ward (hɪndˈwɜːd), *adv.*, *adj.* backward. [bef. 1100; ME *hinde-weard* (adj.). See **HIND**, *-WARD*]

hind-wing, the second, posterior, or metathoracic wing of an insect. [1930-35]

Hines (hɪnz), *n.* 1. **Earl ("Fatha")**, 1905-83, U.S. jazz pianist. 2. **Jerome**, born 1921, U.S. basso.

Hinesville (hɪnzˈvɪl), *n.* a town in SE Georgia. 11,309.

hinge (hɪŋɡ), *n.*, *v.* **hinged**, **hing-ing**. —*n.* 1. a jointed device or flexible piece on which a door, gate, shutter, lid, or other attached part turns, swings, or moves. 2. a natural anatomical joint at which motion occurs around a transverse axis, as that of the knee or a bivalve shell. 3. that on which something is based or depends; pivotal consideration or factor. 4. Also called **mount**, **Philately**. a gummed sticker for affixing a stamp to a page of an album, so folded as to form a hinge, allowing the stamp to be raised to reveal the text beneath. —*v.* 5. to be dependent or contingent on, or as if on, a hinge (usually fol. by on or upon): *Everything hinges on his decision.* —*v.t.* 6. to furnish with or attach by a hinge or hinges. 7. to attach as if by a hinge. 8. to make or consider as dependent upon; predicate: *He hinged his action on future sales.* [1250-1300; ME *henge*; c. LG *heng(e)*, MD *henge* hinge; akin to *HANG*] —**hinge/less**, *adj.* —**hinge/like**, *adj.* —**Syn.** 5. rest, swing, pivot, depend.



hinge joint, Anat. ginglymus. [1795-1805]

Hingham (hɪŋˈəm), *n.* a city in SE Massachusetts. 20,339.

hing-ing post. See **hanging post**.

hink-ty (hɪŋkˈtɪ), *adj.*, *-ti-er*, *-ti-est*. *Slang.* hincty.

hinny (hɪnˈi), *n.*, *pl.* -nies, the offspring of a male horse and a female donkey. Cf. **mule** (def. 1, 2). [1680-90; obs. *hinne* (< L *hinus*; akin to Gk *ginnos* mule) + -y]

hin-yo-ki (hɪ nōˈkɪ), *n.* an evergreen tree, *Chamaecyparis obtusa*, of Japan, having scalelike leaves

and orange-brown cones, grown for timber and as an ornamental. [1720-30; < Japn *hi-no-ki*, equiv. to *hi* cypress (earlier *(y)hi* < **pi*) + *no* grammatical particle + *ki(y)* tree (earlier **koi*)]

Hinsdale (hɪnzˈdæl/), *n.* a city in NE Illinois, near Chicago. 16,726.

Hin-shel-wood (hɪnˈʃəl wʊd/), *n.* **Sir Cyril Norman**, 1897-1967, English chemist; Nobel prize 1956.

hint (hɪnt), *n.* 1. an indirect, covert, or helpful suggestion; clue: *Give me a hint as to his identity.* 2. a very slight or hardly noticeable amount; soupçon: *a hint of garlic in the salad dressing.* 3. perceived indication or suggestion; note; intimation: *a hint of spring in the air.* 4. Obs. an occasion or opportunity. —*v.t.* 5. to give a hint of: *gray skies hinting a possible snowfall.* —*v.i.* 6. to make indirect suggestion or allusion; subtly imply (usually fol. by at): *The article hinted at corruption in the mayor's office.* [1595-1605; (n.) orig., opportunity, occasion, appar. var. of obs. *hent* grasp, act of seizing, deriv. of the *v.* to grasp, *hant*, ME *henten*, OE *hentan*; (v.) deriv. of the *n.*] —**hint'er**, *n.*

Syn. 1. allusion, insinuation, innuendo; memorandum, reminder; inkling. 5. imply, HINT, INTIMATE, INSINUATE, suggest denote the conveying of an idea to the mind indirectly or without full or explicit statement. To *hint* is to convey an idea covertly or indirectly, but intelligibly; to *hint* that one would like a certain present; to *hint* that bits of gossip might be true. To *intimate* is to give a barely perceptible hint, often with the purpose of influencing action: to *intimate* that something may be possible. To *insinuate* is to hint artfully, often at what one would not dare to say directly: to *insinuate* something against someone's reputation. *SUGGEST* denotes particularly recalling something to the mind or starting a new train of thought by means of association of ideas: *The name doesn't suggest anything to me.* —**Ant.** 5. express, declare.

hinter-land (hɪnˈtər lænd/), *n.* 1. Often, **hinterlands**, the remote or less developed parts of a country; back country: *The hinterlands are usually much more picturesque than the urban areas.* 2. the land lying behind a coastal region. 3. an area or sphere of influence in the unoccupied interior claimed by the state possessing the coast. 4. an inland area supplying goods, esp. trade goods, to a port. [1885-90; < Gk *lit*, hinder land, i.e. land behind]

Hinton (hɪnˈtn, -tən), *n.* 1. **Christopher, Baron Hinton of Banksdale**, born 1901, British nuclear engineer. 2. **William Augustus**, 1883-1959, U.S. medical researcher and educator.

hip (hɪp), *n.*, *adj.*, *v.* **hipped**, **hip-ping**. —*n.* 1. the projecting part of each side of the body formed by the side of the pelvis and the upper part of the femur and the flesh covering them; haunch. 2. See **hip joint**. 3. *Archit.* the inclined projecting angle formed by the junction of a sloping side and a sloping end, or of two adjacent sloping sides, of a roof. See *illus.* under **roof**. 4. *Furniture.* knee (def. 6). 5. **shoot from the hip**, *Informal*, to speak or act bluntly or rashly, without deliberation or prudence: *Diplomats are trained to conduct themselves with discretion, and not to shoot from the hip.* 6. **smite hip and thigh**, to attack unmercifully; overcome. *Judg.* 15:8. —*adj.* 7. (esp. of a garment) extending to the hips; *hiplength*: *hip boots.* —*v.t.* 8. (esp. of livestock) to injure or dislocate the hip of. 9. *Archit.* to form (a roof) with a hip or hips. [bef. 1000; ME *hipe*, *hupe*, OE *hype*; c. OHG *huf* (G *Hüfte* hip), Goth *hups* hip, join; cf. Gk *kybos* curve, the hollow about the hips (of cattle), *kybitis* elbow (see *CUBIT*)] —**hip/less**, *adj.* —**hip/like**, *adj.*

hip (hɪp), *n.* the ripe fruit of a rose, esp. of a wild rose. [bef. 900; ME *hepe*, OE *heope* hip, briar; c. OHG *hiufo* bramble]

hip (hɪp), *interj.* (used as a cheer or in signaling for cheers): *Hip, hip, hurrah!* [1745-55; orig. uncert.]

hip (hɪp), *adj.*, **hip-er**, **hip-pest**, *n.*, *v.* **hipped**, **hip-ping**. *Slang.* —*adj.* 1. familiar with or informed about the latest ideas, styles, developments, etc.: *My parents aren't exactly hip, you know.* 2. considered aware of or attuned to what is expected, esp. with a casual or knowing air; cool: *The guy was not at all hip—a total nerd.* 3. in agreement or willing to cooperate; going along: *We explained our whole plan, and she was hip.* —*n.* 4. Also, **hip/ness**, the condition or state of being hip. 5. a hipster or hippie. —*v.t.* 6. to make or keep aware or informed. Also, **hep**. [1900-05; earlier *hep*; of disputed orig.] —**hip/ly**, *adv.*

hip (hɪp), *n.* hyp.

HIP (æhˈɪp/ or, sometimes, hip), Health Insurance Plan.

hip-bone (hɪpˈbɒn/), *n.* 1. See **Innominate bone**. 2. the ilium. [1350-1400; ME; see **HIP**, **BONE**]

hip boot, a hip-high boot, usually of rubber, worn by fishermen, firefighters, etc. [1890-95, Amer.]

hip dysplasia, *Vet. Pathol.* a genetic disorder, typically affecting young dogs of medium- to large-sized breeds, characterized by alteration and malformation of the hip joint.

hip-hop (hɪpˈhɒp/), *Slang.* —*n.* 1. the popular subculture of big-city teenagers, which includes rap music, break dancing, and graffiti art. 2. See **rap music**. —*adj.* 3. of, pertaining to, or characteristic of this subculture: *the hip-hop generation.* [1985-90]

hip-hugger (hɪpˈhʊɡər/), *adj.* 1. (of a garment) having a close-fitting waistline placed at the hip rather than at the natural waist: *hiphugger jeans.* —*n.* 2. **hiphugger**, trousers having this type of waistline. [1965-70; HIP + HUG + -ER]

hip joint, a ball-and-socket joint between the head of the femur and the innominate bone. [1785-95]

hip-length (hɪpˈlɛŋkθ/, -lɛŋθ/), *adj.* reaching to or covering the hips, as clothing: *a hiplength sweater.* [1920-25; HIP + LENGTH]

hipp, var. of **hippo** before a vowel: *hipparch*.

Hip-par-chus (hɪ pɑːrˈkʊs), *n.* 1. died 514 a.c., tyrant of Athens 527-514. 2. 1090-1125 a.c., Greek astronomer.

hipped (hɪpt), *adj.* 1. having hips. 2. having the hips as specified (usually used in combination): *broad-hipped; narrow-hipped.* 3. (esp. of livestock) having the hip injured or dislocated. 4. *Archit.* formed with a hip or hips, as a roof. [1500-10; HIP + -ED]

hipped (hɪpt), *adj.* *Informal.* greatly interested or preoccupied, almost to an irrational extent; obsessed (usually fol. by on): *He'shipped on learning to play the tuba.* [1915-20; HIP + -ED]

Hip-plas (hɪpˈeɪs), *n.* fl. 6th century b.c., tyrant of Athens (brother of Hipparchus, son of Pisistratus).

hip-ple (hɪpˈeɪ), *n.* a person, esp. of the late 1960's, who rejected established institutions and values and sought spontaneity, direct personal relations expressing love, and expanded consciousness, often expressed externally in the wearing of casual, folksy clothing and of beads, headbands, used garments, etc. Also, **hippy**. Cf. **flower child**. [1950-55, Amer.; HIP + -IE]

hip-ple-dom (hɪpˈeɪ dɒm), *n.* the lifestyle and world of hippies, esp. in the 1960's. [1965-70, Amer.; HIPPIE + -DOM]

hip-po (hɪpˈo), *n.*, *pl.* -pos. *Informal.* hippopotamus. [by shortening]

Hip-po (hɪpˈo), *n.* See **Hippo Regius**.

hippo, a combining form appearing in loanwords from Greek, where it meant "horse" (*hippodrome*); on this model, used in the formation of compound words (*hippology*). Also, esp. before a vowel, **hipp-** [*<* Gk: comb. form of *hippos*; c. L *equus*, Olf *ech*, OE *eoh*, Skt *asvas*, Lith *asvas*]

hip-po-cam-pal (hɪpˈo kəmˈpæl), *adj.* Anat. of or pertaining to the hippocampus. [1830-40; HIPPOCAM(US) + -AL]

hip-pocam-pal gy/rus, Anat. a convolution on the inner surface of the temporal lobe of the cerebrum, bordering the hippocampus. Also called **hippocamp/pal convolu'tion**. [1880-85]

hip-po-cam-pus (hɪpˈo kəmˈpəs), *n.*, *pl.* -pi (-pi, -pē). 1. *Class. Myth.* a sea horse with two forefeet, and a body ending in the tail of a dolphin or fish. 2. *Anat.* an enfolding of cerebral cortex into the lateral fissure of a cerebral hemisphere, having the shape in cross section of a sea horse. [1600-10; < L < Gk *hippókampus*, equiv. to *hippo*-HIPPO- + *kampus* sea monster]

hip-po-cras (hɪpˈo kras/), *n.* an old medicinal cordial made of wine mixed with spices. [1325-75; ME *ypocras*, appar. short for *ypocras uyn* (trans. of ML *vinum hippocraticum*; so called because clarified by filtering through a strainer named after Hippocrates); ME *ypocras* < OF: HIPPOCRATES < ML *Hippocrātes*, alter. of L *Hippocrātes*, on model of words like *civitas* (nom.), *civitatilis* (gen.)]

Hip-poc-ra-tes (hɪ pɒkˈrə tɛz/), *n.* ("Father of Medicine") c460-c377 b.c., Greek physician. —**Hip-po-crat-ic** (hɪpˈo krətɪk/), *adj.*

Hip-pocrat/ic oath, an oath embodying the duties and obligations of physicians, usually taken by those about to enter upon the practice of medicine. [1740-50]

Hip-po-crene (hɪpˈo krɛn/, hɪpˈo krɛˈnɛ), *n.* a spring on Mount Helicon sacred to the Muses and regarded as a source of poetic inspiration. —**Hip-po-cre/nian**, *adj.*

hip-po-drome (hɪpˈo drɒm/), *n.* 1. an arena or structure for equestrian and other spectacles. 2. (in ancient Greece and Rome) an oval track for horse races and chariot races. [1540-50; < L *hippodromos* < Gk *hippódromos*, equiv. to *hippo*-HIPPO- + *dromos* -DROME] —**hip-po-drom-ic** (hɪpˈo drɒmɪk/), *adj.*

hip-po-griff (hɪpˈo grɪf/), *n.* a fabulous creature resembling a griffin but having the body and hind parts of a horse. Also, **hip-po-griff**. [1645-55; earlier *hippogryph*, Latinized < It *ippogrifo*. See **HIPPO**, **GRIFFIN**]

hip-pol-o-gy (hɪ pɒlˈo ɡeɪ/), *n.* the study of horses. [1850-55; HIPPO- + -LOGY] —**hip-po-log-i-cal** (hɪpˈo loʒɪ kəl/), *adj.* —**hip-pol-o-gist**, *n.*

Hip-pol-y-ta (hɪ pɒlˈi tɔ/), *n.* *Class. Myth.* a queen of the Amazons, variously said to have been killed by Hercules or to have been conquered and married by Theseus.

Hip-pol-y-tus (hɪ pɒlˈi tʌs/), *n.* Also, **Hip-pol-y-tos** (hɪ pɒlˈi tʌs, -tɒs/), *Class. Myth.* the son of Theseus who was falsely accused by his stepmother, Phaedra, of raping her after he had rejected her advances and who was killed by Poseidon in response to the plea of Theseus.

Hip-pom-e-nes (hɪ pɒmˈe nəz/), *n.* *Class. Myth.* the successful suitor of Atalanta.

hip-poph-a-gist (hɪ pɒfˈe ɡɪst/), *n.* a person who eats horseflesh. [1855-60; HIPPOPHAG(V) + -IST]

hip-poph-a-gy (hɪ pɒfˈe ɡeɪ/), *n.* the practice of eating horseflesh. Also, **hip-poph-a-gism**. [1820-30; HIPPO- + -PHAGY] —**hip-poph-a-gous** (hɪ pɒfˈe ɡəs/), *adj.*

hip-po-phil (hɪpˈo fɪl/, -fɪl/), *n.* one who loves horses. [1850-55; HIPPO- + -PHILE]

hip-po-pot-a-mus (hɪpˈo pɒtˈə məs/), *n.*, *pl.* -mus-es, -mi (-mi/), a large herbivorous mammal, *Hippopotamus amphibius*, having a thick hairless body, short legs, and a large head and muzzle, found in and near the rivers, lakes, etc., of Africa, and able to remain under water for a considerable time. See *illus.* on next page. [1555-65; < L < Gk *hippōtāmos*, earlier *hippos potāmos* lit., riv-

CONCISE PRONUNCIATION KEY: act, cāpe, dāre, pārt; set, ēqual; if, ice; ox, ūer; ōrder, oil, bōok, bōat, out, ūrge; child; sing; shoe; thin; that; zh as in treasure, a = a as in alone, e as in system, i as in easily, o as in gallop, u as in circus; * as in fire (fīr), hour (ouˈr). l and n can serve as syllabic consonants, as in cradle (krādˈl), and button (bʌtˈn). See the full key inside the front cover.

various epiphytic orchids of the genus *Phalaenopsis*, native to tropical Asia, having clusters of showy, variously colored flowers. Also called **moth orchid**. [**< NL** (1825), equiv. to *Gk phál(l)ain(a) moth* + *-opsis -orisis*; reflecting the popular name *moth orchid*]

phal-ange (fál'anj, fə lánj, fál'anj), *n.*, *pl.* **phalan-ge** (fə lán'jəz). *Anat.*, *Zool.* a phalanx. [1550-60; back formation from **PHALANX**]

phal-ange-al (fə lán'jə əl), *adj.* 1. of or pertaining to a phalanx. 2. *Anat.*, *Zool.* of or pertaining to a phalanx or the phalanges. [1825-35; **< NL phalange(us)** + **-al**]

phal-ange-r (fə lán'jər), *n.* any of numerous arboreal marsupials of the family Phalanguridae, of Australia, having foxlike ears and a long, bushy tail. [1765-75; **< F** (Buffon) or **< NL** (1780) **< Gk phalang-**, *s.* of *phalanx* + **-er**, of unclear orig.; the name refers to the syndactylous 2d and 3d digits of the hind feet]

phal-an-ges (fə lán'jəz), *n.* 1. a pl. of **phalanx**. 2. *pl.* of **phalange**. [**< L** **< Gk phalanges**]

phal-an-ster-i-an (fál'ən stər'ē ən), *adj.* 1. of or pertaining to a phalanster. 2. of or pertaining to phalansterism. —*n.* 3. a member of a phalanster. 4. an advocate of phalansterianism; a Fourierist. [1835-45; **PHALANSTERY** + **-an**]

phal-an-ster-i-an-ism (fál'ən stər'ē ə níz'əm), *n.* a system by which society would be reorganized into units comprising their own social and industrial elements; Fourierism. [1840-50; **PHALANSTERIAN** + **-ism**]

phal-an-ster-y (fál'ən stər'ē), *n.*, *pl.* **-ster-ies**. 1. (in Fourierism) a. the buildings occupied by a phalanx. b. the community itself. 2. any similar association, or the buildings they occupy. [1840-50; **< F phalanstère**, *b.* *phalange* **PHALANX** and *monastère* **MONASTERY**]

pho-lanx (fál'langks, fál'angks), *n.*, *pl.* **phal-anx-es** or, for 7, **pho-lan-ges** (fə lán'jəz), *v.* —*n.* 1. (in ancient Greece) a group of heavily armed infantry formed in ranks and files close and deep, with shields joined and long spears overlapping. 2. any body of troops in close array. 3. a number of individuals, esp. persons united for a common purpose. 4. a compact or closely massed body of persons, animals, or things. 5. *Mil.* (cop.) a radar-controlled U.S. Navy 20mm Gatling-type gun developed on ships as a last line of defense against antiship cruise missiles. 6. (in Fourierism) a group of about 1800 persons, living together and holding their property in common. 7. *Anat.*, *Zool.* any of the bones of the fingers or toes. See **diag.** under **skeleton**. —*v.* 8. *Print.* to arrange the distribution of work in a shop as evenly as possible. [1545-65; **< L** **< Gk phalanx** military formation, bone of finger or toe, wooden roller]

phal-a-rope (fál'ə rōp'), *n.* any of three species of small, aquatic birds of the family Phalaropodidae, resembling sandpipers but having lobate toes. [1770-80; **< F** **< NL** *Phalaropus* genus name **< Gk phalaris** (s) coot + **-o -o -o** + **-pous -footed**; see **-pod**]

phal-er-a (fál'ər ə), *n.*, *pl.* **phal-er-ae** (fál'ə rē'), a metal disk or boss worn on a man's breast as an ornament or as a military decoration or used to adorn the harness of a horse. [1600-10; **< L**, sing. use of *Gk phalarā* (pl.) cheek-pieces]

phal-lic (fál'ik), *adj.* 1. of, pertaining to, or resembling a phallus. 2. of or pertaining to phallicism. 3. genital (def. 2b). Also, **phal/i-cal**. [1780-90; **< Gk phallikos**. See **PHALLUS**, **-ic**]

phal-li-cism (fál'ə siz'əm), *n.* worship of the phallus, esp. as symbolic of power or of the generative principle of nature. Also, **phal/lism** (fál'iz'əm). [1880-85; **PHALLIC** + **-ism**] —**phal/li-cist**, **phal/list**, *n.*

phal/lic phase, *Psychoanal.* the time from about age three to five when the genitals become the focus of a child's sensual pleasure. Also called **phal/lic stage**.

phal/lic sym/bol, *Psychoanal.* any object, as a cigar or skyscraper, that may broadly resemble or represent the penis, esp. such an object that symbolizes power, as an automobile. [1905-10]

phal-lo-ten-trism (fál'ə tən'tríz'əm), *n.* a doctrine or belief centered on the phallus, esp. a belief in the superiority of the male sex. [1925-30] —**phal/lo-ten-tric**, *adj.*

phal-lo-tox-in (fál'ə tók'sin), *n.* *Mycol.* any of a group of potent mycotoxins produced by certain mushroom species of the genus *Amanita*. [1965-70; **< NL** (*Amanita*) *phallo(ides)* one such species (see **PHALLUS**, **-oid**) + **-toxin**]

phal-lus (fál'əs), *n.*, *pl.* **phal-li** (fál'i), **phal-lus-es**. 1. an image of the male reproductive organ, esp. that carried in procession in ancient festivals of Dionysus, Bacchus, symbolizing the generative power in nature. 2. *Anat.* the penis, the clitoris, or the sexually undifferentiated embryonic organ out of which either of these develops. [1605-15; **< L** **< Gk phallós** penis]

Pham Van Dong (fám'văn' dōng'), born 1906, Vietnamese political leader; prime minister of North Vietnam 1955-76 and of unified Vietnam 1976-86.

phan-er-ite (fán'ər it'), *n.* any igneous rock whose grains are visible to the naked eye. [1855-60; **< Gk phaner(ōs)** manifest, visible + **-ite**]

phan-er-o-cryst-tal-line (fán'ər ō krys'tl in, -in'), *adj.* *Petrog.* (of a rock) having the principal constituents in the form of crystals visible to the naked eye. Also, **phan-er-itic** (fán'ər it'ik). [1860-65; **< Gk phaner(ōs)** visible, manifest + **CRYSTALLINE**]

phan-er-o-gam (fán'ər ə gám'), *n.* *Bot.* any of the Phanerogamia, a former primary division of plants comprising those having reproductive organs; a flowering plant or seed plant (opposed to **cryptogam**). [1860-65; **< NL** *phanerogamus*, equiv. to *Gk phaner(ōs)* visible + **-gamos -GAMOUS**] —**phan-er-o-gam-ic**, **phan-er-o-ga-mous** (fán'ər ō gə'məs), **phan-er-o-ga-mi-an** (fán'ər ə gə'mē ən), *adj.* —**phan-er-o-ga-my**, *n.*

Phan-er-o-zo-ic (fán'ər ə zō'ik), *Geol.* —*n.* 1. the era comprising the Paleozoic, Mesozoic, and Cenozoic eras. —*adj.* 2. of or pertaining to this era. [1925-30; **< Gk phaner(ōs)** manifest, visible + **-zo-** + **-ic**]

phan-o (fán'ō), *n.*, *pl.* **phan-os**. fanon.

phan-o-tron (fán'ə trŏn'), *n.* *Electronics.* a hot-cathode gas diode. [1930-35; **< Gk phan(azein)** to appear + **-o -o -o** + **-tron**]

phan-ta-size (fán'tə siz'), *v.*, *vi.*, *vt.* —**sized**, **-sizing**. fantasize. Also, **esp. Brit.**, **phan'ta-size**.

phan-tasm (fán'taz əm), *n.* 1. an apparition or specter. 2. a creation of the imagination or fancy; fantasy. 3. a mental image or representation of a real object. 4. an illusory likeness of something. Also, **fantasm**. [1175-1225; **< L phantasma** **< Gk phántasma** image, vision (akin to *phantazein* to bring before the mind); *r.* **ME fantesme** **< OF** **< L** as above]

Syn. 1. ghost, vision. See **apparition**. 4. hallucination, illusion.

phan-tas-ma (fán taz'mə), *n.*, *pl.* **-ma-ta** (-mə tə). phantasm (def. 1, 2). [1590-1600; **< L**]

phan-tas-ma-go-ri-a (fán taz'mə gŏr'ē ə, -gŏr'ē), *n.* 1. a shifting series of phantasms, illusions, or deceptive appearances, as in a dream or as created by the imagination. 2. a changing scene made up of many elements. 3. an optical illusion produced by a magic lantern or the like in which figures increase or diminish in size, pass into each other, dissolve, etc. [1795-1805; **< F fantas-magorie**, compound base on *fantasme* **PHANTASM**; second element *perh.* *repr.* *Gk agorá* assembly, gathering; see **-ia**] —**phan-tas-ma-go-ri-al**, **phan-tas-ma-go-ri-cal** (fán taz'mə gŏr'ik, -gŏr'ē), **phan-tas-ma-go-ri-al-ly**, **phan-tas-ma-go-ri-cal-ly**, **phan-tas-ma-go-ri-an-ly**, **phan-tas-ma-go-ri-an-ly**, *adv.* —**phan-tas-ma-go-ri-st**, *n.*

phan-tas-ma-go-ry (fán taz'mə gŏr'ē, -gŏr'ē), *n.*, *pl.* **-ries**. phantasmagoria.

phan-tas-mal (fán taz'məl), *adj.* pertaining to or of the nature of a phantasm; unreal; illusory; spectral; *phantasmal creatures of nightmare*. Also, **phan-tas-mic**, **phan-tas-mi-cal**, **phan-tas-mat-ic** (fán'taz mat'ik), **phan-tas-mat-i-cal**. [1805-15; **PHANTASM** + **-al**] —**phan-tas-mal-ly**, **phan-tas-mat-i-cal-ly**, *adv.*

phan-tast (fán'tast), *n.* fantast.

phan-tasy (fán'tə sē, -zē), *n.*, *pl.* **-sies**. fantasy.

phan-tom (fán'tŏm), *n.* 1. an apparition or specter. 2. an appearance or illusion without material substance, as a dream image, mirage, or optical illusion. 3. a person or thing of merely illusory power, status, efficacy, etc.: *the phantom of fear*. 4. an illustration, part of which is given a transparent effect so as to permit representation of details otherwise hidden from view, as the inner workings of a mechanical device. —*adj.* 5. of, pertaining to, or of the nature of a phantom; illusory: *a phantom sea serpent*. 6. *Elect.* nothing or pertaining to a phantom circuit. 7. named, included, or recorded but nonexistent; fictitious: *Payroll checks were made out and cashed for phantom employees*. Also, **fantom**. [1250-1300; *ME fantasme* **< MF, OF** **< L phantasma** **PHANTASM**] —**phan-tom-like**, *adj.* —**Syn.** 1, 2. See **apparition**. 5. imaginary. —**Ant.** 5. real, material.

phan-tom cir/cuit, *Elect.* a circuit derived from two suitably arranged pairs of wires, each pair being a circuit (*side circuit*) and also acting as one half of an additional derived circuit, the entire system providing the capabilities of three circuits while requiring wires for only two. [1880-85]

phan-tom limb/ pain, *Pathol.* a phenomenon characterized by the experience of pain, discomfort, or other sensation in the area of a missing limb or other body part, as a breast. Also called **pseudesthesia**.

phan-tom stock, an employee bonus expressed as the cash value of a specified amount of company stock to be received at a future date, meant to create employee interest in raising stock prices without giving any stock away.

-phany, a combining form occurring in loanwords from Greek, meaning "appearance," "manifestation" (*epiphany*); used in the formation of compound words (*Christophany*; *Satanophany*). [**< Gk -phania**, akin to *phainesthai* to appear]

Phar. 1. pharmaceutical. 2. pharmacology. 3. pharmacopoeia. 4. pharmacy. Also, **phar**.

Phar-ah (fár'ə, fár'ə, fār'ō), *n.* 1. a title of an ancient Egyptian king. 2. (l.c.) any person who uses power or authority to oppress others; tyrant. [bef. 900; *ME Pharaon*, *OE Pharaon* **< L pharaō** **< Gk pharaō** (s, pharaōn) **< Heb phār'ōh** **< Egyptian pr** house + *great*; orig. a designation for the palace, but used to refer to the king from the time of Akhenaton (14th cent. B.C.); *-h* restored from *Heb*]

Phar-ah ant, a red or yellow ant, *Monomorium pharaonis*, introduced from Europe into North America: a common household pest. Also, **Phar'ah's ant**.

phar-ah hound (fár'ə, fár'ə, fār'ō), *n.* one of a breed of medium-sized gazehounds with a smooth coat, red to tan in color with white markings, and erect ears.

Phar-a-on-ic (fár'ə ōn'ik, fār'ē), *adj.* 1. (sometimes l.c.) of or like a Pharaoh; living in Pharaonic splendor. 2. (usually l.c.) impressively or overwhelmingly large, luxurious, etc.: *a construction project of pharaonic proportions*. 3. (l.c.) cruelly oppressive; tyrannical: *pharaonic tax laws*. [1850-55; **< Gk Pharaōn-** (s. of *Pharaō* **PHARAOH**) + **-ic**]

Phar.B. Bachelor of Pharmacy.

Phar.D. Doctor of Pharmacy.

Phar-i-sa-ic (fár'ə sá'ik), *adj.* 1. of or pertaining to the Pharisees. 2. (l.c.) practicing or advocating strict observance of external forms and ceremonies of religion or conduct without regard to the spirit; self-righteous; hypocritical. Also, **Phar-i-sa/i-cal**. [1610-20; **< LL** *Pharisaicus* **< Gk Pharisaikos**. See **PHARISEE**, **-ic**] —**Phar-i-sa/i-cal-ly**, *adv.* —**Phar-i-sa/i-cal-ness**, *n.*

Phar-i-sa-ism (fár'ə sá'iz'əm), *n.* 1. the principles

and practices of the Pharisees. 2. (l.c.) rigid observance of external forms of religion or conduct without genuine piety; hypocrisy. Also, **Phar-i-sae-ism** (fár'ə sē'iz'əm). [1595-1605; **< NL** *Pharisaismus*. See **PHARISAEIC**, **-ISM**] —**Phar-i-sa-ist**, *adj.*

Phar-i-see (fár'ə sē'), *n.* 1. a member of a Jewish sect that flourished during the 1st century B.C. and 1st century A.D. and that differed from the Sadducees chiefly in its strict observance of religious ceremonies and practices, adherence to oral laws and traditions, and belief in an afterlife and the coming of a Messiah. 2. (l.c.) a sanctimonious, self-righteous, or hypocritical person. [bef. 900; *ME Pharise*, *Farise*, *OE Fariseus* **< LL** *Phariseus*, var. of *Pharisaeus* **< Gk** *Pharisaíos* **< Aram** *parishayyā*, pl. of *parishā* lit., separated]

pharm. 1. pharmaceutical. 2. pharmacology. 3. pharmacopoeia. 4. pharmacy.

phar-ma-ceu-ti-cal (fár'mə sē'sti kəl), *adj.* 1. pertaining to pharmacy or pharmacists. —*n.* 2. a pharmaceutical preparation or product. Also, **phar'ma-ceu-tic**. [1640-50; **PHARMACEUTIC(s)** + **-al**] —**phar'ma-ceu-ti-cal-ly**, *adv.*

phar-ma-ceu-tics (fár'mə sē'sti'k), *n.* (used with a singular v.) pharmacy (def. 1). [1535-45; **< LL** *pharmaceuticus* **< Gk** *pharmakutikhós*, equiv. to *pharmakeut(ēs)* druggist, orig. poisoner (deriv. of *pharmakon*; see **PHARMACO-**) + **-ikos -ic**; see **-ics**]

phar-ma-cist (fár'mə síst), *n.* a person licensed to prepare and dispense drugs and medicines; druggist; apothecary; pharmaceutical chemist. Also, **phar'ma-ceu-tist** (fár'mə sē'stist). [1825-35; **PHARMAC(Y)** + **-ist**] —**Syn.** chemist.

pharmaco-, a combining form meaning "drug," used in the formation of compound words: *pharmacology*. [comb. form repr. *Gk pharmakon* drug]

phar-ma-co-dy-nam-ics (fár'mə kŏ dī nam'iks), *n.* (used with a singular v.) the branch of pharmacology dealing with the course of action, effect, and breakdown of drugs within the body. [1835-45; **PHARMACO-** + **-DYNAMICS**] —**phar'ma-co-dy-nam-ic**, **phar'ma-co-dy-nam-i-cal**, *adj.*

phar-ma-co-gene-tics (fár'mə kŏ jə net'iks), *n.* (used with a singular v.) *Pharm.* the branch of pharmacology that examines the relation of genetic factors to variations in response to drugs. [1955-60; **PHARMACO-** + **GENETICS**] —**phar-ma-co-gene-tic** (fár'mə kŏ jə net'ik), *adj.*

phar-ma-cog-no-sy (fár'mə kog'nə sē), *n.* See **mat-eria medica** (def. 2). [1835-45; **PHARMACO-** + **-GNOSIS** + **-y**] —**phar'ma-cog-no-sist**, *n.* —**phar-ma-cog-nos-tic** (fár'mə kog'nə sē'tik), *adj.*

phar-ma-co-ki-net-ics (fár'mə kŏ ki net'iks, -ki-), *n.* (used with a singular v.) *Pharm.* the branch of pharmacology that studies the fate of pharmacological substances in the body, as their absorption, distribution, metabolism, and elimination. [1955-60; **PHARMACO-** + **KINETICS**]

phar-mac-o-lite (fár mak'ə lit', fár'mə kə-), *n.* hydrous calcium arsenate, $2\text{CaO} \cdot \text{As}_2\text{O}_5 \cdot 5\text{H}_2\text{O}$, formed by natural alteration of mineral deposits containing arsenopyrite and arsenical ores of cobalt and silver. [1795-1805; **PHARMACO-** + **-LITE**; modeled on *G Pharmakolith*]

phar-ma-col-o-gy (fár'mə kol'ə jē), *n.* the science dealing with the preparation, uses, and esp. the effects of drugs. [1715-25; **< NL** *pharmacologia*. See **PHARMACO-**, **-LOGY**] —**phar-ma-col-o-gi-cal** (fár'mə kə loj'i kəl), **phar-ma-col-o-gic**, *adj.* —**phar-ma-col-o-gi-cal-ly**, *adv.* —**phar-ma-col-o-gist**, *n.*

phar-ma-co-poe-ia (fár'mə kə pē'ə), *n.* *Pharm.* 1. a book published usually under the jurisdiction of the government and containing a list of drugs, their formulas, methods for making medicinal preparations, requirements and tests for their strength and purity, and other related information. 2. a stock of drugs. Also, **phar'ma-co-poe-la**. [1615-25; **< NL** **< Gk** *pharmakopoeia* drug-maker's art, equiv. to *pharmakō(n)* drug + *-poi(ōs)* making (*poi(ein)* to make + *-os* *adj.* suffix) + *-ia* *-IA*] —**phar'ma-co-poe-i-al**, **phar'ma-co-poe-i-c**, *adj.* —**phar'ma-co-poe-i-st**, *n.*

phar-ma-co-ther-a-py (fár'mə kə thər'ə pē), *n.* the treatment of disease through the administration of drugs. [1905-10; **PHARMACO-** + **THERAPY**]

phar-ma-cy (fár'mə sē), *n.*, *pl.* **-cies**. 1. Also called **pharmaceutics**, the art and science of preparing and dispensing drugs and medicines. 2. a druggstore. [1645-55; earlier *pharmacia* **< ML** **< Gk** *pharmakēia* druggist's work. See **PHARMACO-**, **-y**]

Pharm.D. Doctor of Pharmacy.

Pharm.W. Master of Pharmacy.

Pha-ros (fár'os), *n.* 1. a small peninsula in N Egypt, near Alexandria: site of ancient lighthouse built by Ptolemy. 2. the lighthouse on this peninsula. Cf. **Seven Wonders of the World**. 3. any lighthouse or beacon to direct sailors.

Pharr (fär), *n.* a city in S Texas. 21,381.

Phar-sa-ika (fär sál'ē ə, -sál'yə), *n.* a district in ancient Greece whose chief city was Pharsalus. —**Phar-sa-li-an**, *adj.*

Phar-sa-lus (fär sál'as), *n.* an ancient city in central Greece, in Thessaly: site of Caesar's victory over Pompey 48 B.C.

pharyng-, var. of **pharyngo-** before a vowel: *pharyngitis*.

phar-ryn-ge-al (fə rin'jē əl, -jəl, fār'in jē'əl), *adj.* 1. of, pertaining to, or situated near the pharynx. 2. *Pho-*

CONCISE PRONUNCIATION KEY: act, câpe, däre, pärt; æt, èqual; if, ice; ox, över, örder, oil, böök, bööt, out; up, ürge, chüd; sing; shoe; thin; thai; zh as in treasure. ö = ö as in alone, e as in system, i as in that; zh as in treasure. ö = ö as in alone, e as in system, i as in that; easily, ö as in gale, u as in circus; * as in fire (fîr), hour (ou'r), I and n can serve as syllabic consonants, as in cradle (kräd'l), and button (but'n). See the full key inside the front cover.

ful, 2. the amount contained on a shelf. *We gave away a shelfful of books.* [1875-80; SHELF + -FUL]
—**Usage**. See **-ful**.

shelf/ice, *n.* ice forming part of or broken from an ice shelf. [1910-15]

shelf/life, *n.* the term or period during which a stored commodity remains effective, useful, or suitable for consumption. *Many medicines have a very short shelf life.* Also called **storage life**. [1925-30]

shelf-list (shel/'list/), *n.* *Library Science*. a record of the books and other materials in a library arranged in the order in which the materials are stored on shelves. [1905-10; SHELF + LIST]

shelf/mark, *n.* *Library Science*. a symbol indicating the location of a work on a shelf. [1835-45]

shelf/paper, *n.* paper used for covering shelves, esp. those of a cupboard or kitchen cabinet. [1890-95]

shell (shel), *n.* 1. a hard outer covering of an animal, as the hard case of a mollusk, or either half of the case of a bivalve mollusk. 2. any of various objects resembling such a covering, as in shape or in being more or less concave or hollow. 3. the material constituting any of various coverings of this kind. 4. the hard exterior of an egg. 5. the usually hard, outer covering of a seed, fruit, etc., as the pod of peas. 6. a hard, protecting or enclosing case or cover. 7. an attitude or manner of reserve that usually conceals one's emotions, thoughts, etc.: *One could not penetrate his shell.* 8. a hollow projectile for a cannon, mortar, etc., filled with an explosive charge designed to explode during flight, upon impact, or after penetration. 9. a metallic cartridge used in small arms and small artillery pieces. 10. a metal or paper cartridge, as for use in a shotgun. 11. a cartridge-like pyrotechnic device that explodes in the air. 12. *shells, Italian Cookery*. small pieces of pasta having the shape of a shell. 13. the lower pastry crust of a pie, tart, or the like, baked before the filling is added. 14. *Computers*. a program providing a menu-driven or graphical user interface designed to simplify use of the operating system, as in loading application programs. 15. *Physics*. a. any of up to seven energy levels on which an electron may exist within an atom, the energies of the electrons on the same level being equal and on different levels being unequal. b. a group of nucleons of approximately the same energy. 16. a light, long, narrow racing boat, for rowing by one or more persons. 17. the outer part of a finished garment that has a lining, esp. a detachable lining. 18. a woman's sleeveless blouse or sweater, esp. one meant for wear under a suit jacket. 19. *Naut.* the plating, planking, or the like, covering the ribs and forming the exterior hull of a vessel. 20. See **tortoise shell** (def. 1). 21. a mollusk. 22. *Eng.* gineering. the curved solid forming a dome or vault. 23. an arena or stadium covered by a domed or arched roof. 24. a saucer-shaped arena or stadium. 25. the framework, external structure, or walls and roof of a building. *After the fire, only the shell of the school was left.* 26. a small glass for beer. 27. the metal, pressure-resistant outer casing of a fire-tube boiler. 28. *Metal.* a scab on the surface of an ingot. b. a length of unfinished tubing. c. a pierced forging. d. a hollow object made by deep drawing. —*vt.* 29. to take out of the shell, pod, etc.; remove the shell of. 30. to separate (Indian corn, grain, etc.) from the ear, cob, or husk. 31. to fire shells or explosive projectiles into, upon, or among; bombard. —*vi.* 32. to fall or come out of the shell, husk, etc. 33. to come away or fall off, as a shell or outer coat. 34. to gather sea shells. 35. *shell out, Informal*. to hand over (money); contribute; pay. [bef. 900; *n.* ME; OE *scell* (nthal), *scell*; *c.* D *schel* peel, skin, rink, *ON* *skel* shell, *Goth* *skalk* tile; (*v.*) deriv. of the *n.*; cf. *SHALE*].

—**shell-less**, *adj.* —**shell-like**, *adj.*

shell-er (shel/'er), *n.* 1. a person, device, machine, etc., that shells something, as peas or clams. 2. a person who collects seashells. [1685-95; SHELL + -ER]

Shell-ey (shel/'e), *n.* 1. *Mary Wollstonecraft* (Godwin) (woll'stan krait/, -kräft/), 1797-1851, English author (wife of Percy Bysshe Shelley). 2. *Percy Bysshe* (bish/), 1792-1822, English poet. 3. a male or female given name.

Shell-ey-an (shel/'e an), *adj.* 1. Also, **Shel/ll-an**, of, pertaining to, or characteristic of Percy Bysshe Shelley or his works. —*n.* 2. a student or admirer of the works of Percy Bysshe Shelley. [1840-50; SHELLEY + -AN]

shell-fire (shel/'fi'r/), *n.* *Mil.* the firing of explosive shells or projectiles. [1855-60; SHELL + FIRE]

shell-fish (shel/'fish/), *n.* *pl.* (esp. collectively) -fish-es, (esp. referring to two or more kinds or species) -fish-es, an aquatic animal having a shell, as the oyster and other mollusks and the lobster and other crustaceans. [bef. 900; ME; OE *scilfisc*. See **SHELL**, **FISH**]

shell-flower (shel/'flou'er/), *n.* 1. an eastern Asian plant, *Alpinia zerumbet*, of the ginger family, having pendulous clusters of fragrant white flowers with variegated markings. 2. See **Bells of Ireland**. 3. any of several other plants with flowers or parts thought to resemble shells, as those of the genus *Tigridia*. [1835-45; SHELL + FLOWER]

shell/game, 1. a sleight-of-hand swindling game resembling thimbleburg but employing walnut shells or the like instead of thimblelike cups. 2. any deceit, swindle, fraud, or the like. [1885-90, *Amer.*]

shell/jacket, a close-fitting, semiformal jacket, with a short back, worn in the tropics in place of a tuxedo. [1830-40]

shell/parakeet, budgerigar.

shell/pink, delicate whitish to yellow pink. [1885-90] —**shell-/pink**, *adj.*

shell-proof (shel/'pru:ft/), *adj.* protected against the explosive effect of shells or bombs. [1860-65; SHELL + -PROOF]

shell/shock. See **battle fatigue**. [1915-20] —**shell-/shocked**, **shell/shocked**, *adj.*

shell/star, *Astron.* a type of star showing bright emission lines superimposed on its normal absorption spectrum, presumably caused by a gaseous shell around the star.

shell/steak, *Cookery*. a porterhouse steak with the fillet removed. Also called **New York cut**, **New York shell**. [1970-75]

shell-work (shel/'wûrk/), *n.* decorative work composed of seashells: *an elaborate picture frame decorated with shellwork*. [1605-15; SHELL + WORK]

shelly (shel/'e), *adj.* **shelly-er**, **shelly-est**. 1. abounding in shells: *a shelly surf*. 2. consisting of a shell or shells. 3. like a shell or shells. [1545-55; SHELL + -Y]

Shelly (shel/'e), *n.* a male or female given name.

Shel/ta (shel/'te), *n.* a private language, based in part on Irish, used among Travelers in the British Isles. [1875-80; orig. uncert.]

shel/ter (shel/'tar/), *n.* 1. something beneath, behind, or within which a person, animal, or thing is protected from storms, missiles, adverse conditions, etc.; refuge. 2. the protection or refuge afforded by such a thing: *He took shelter in a nearby barn.* 3. protection from blame, incrimination, etc. 4. a dwelling place or home considered as a refuge from the elements: *Everyone's basic needs are food, clothing, and shelter.* 5. a building serving as a temporary refuge or residence for homeless persons, abandoned animals, etc. 6. *Finance*. See **tax shelter**. —*vt.* 7. to be a shelter for; afford shelter to: *The old barn sheltered him from the rain.* 8. to provide with a shelter; place under cover. 9. to protect, as by shelter; take under one's protection: *Parents should not try to shelter their children from normal childhood disappointments.* 10. *Finance*. to invest (money) in a tax shelter. —*vi.* 11. to take shelter; find a refuge: *He sheltered in a barn.* 12. *Finance*. to invest money in a tax shelter. [1575-85; perh. alter. of obs. *sheltron* testudo, OE *scieldtruma*, equiv. to *scield* SHIELD + *truma* body of fighting men; see **TRIM**] —**shel/ter-er**, *n.* —**shel/ter-ing**, *adv.* —**shel/ter-less**, *adj.* —**shel/ter-lessness**, *n.*

—**Syn.** 1. retreat, asylum, sanctuary, shield, haven, harbor. See **cover**. 7. harbor, house. 9. guard, safeguard, shield, defend.

shel/ter deck, *Naut.* 1. a weather deck covering a space not considered fully watertight. 2. the 'tween deck beneath this. [1910-15]

shel/tered (shel/'terd/), *adj.* 1. protected or shielded from storms, missiles, etc., by a wall, roof, barrier, or the like. 2. protected from the troubles, annoyances, sordidness, etc., encountered in competitive situations: *a sheltered life*. 3. (of a business or industry) enjoying non-competitive conditions, as because of a protective tariff. 4. of or pertaining to employment or housing, esp. for handicapped persons, in a noncompetitive, supervised environment. [1585-95; SHELTER + -ED]

shel/tered work/shop, a place of employment for handicapped persons where their rights are protected and their needs are met.

shel/tering trust. See **spondthrift trust**.

shel/ter tent, a small, two-person, military tent consisting of two halves (shel/ter halves) buttoned or tied together, held up by accessory ropes and poles. Also called **pup tent**. [1860-65, *Amer.*]

Shel/ton (shel/'tn/), *n.* 1. a city in SW Connecticut. 31,314. 2. a male given name.

shel/ty (shel/'te), *n.* *pl.* -ties. *Informal*. 1. See **Shetland pony**. 2. See **Shetland sheepdog**. Also, **shel/ty**. [1640-50; *shelt* (< ON *hjaltr* native of SHETLAND) + -Y]

shelve (shel/), *v.t.* **shelved**, **shelv-ing**. 1. to place

(something) on a shelf or shelves. 2. to put off or aside from consideration: *to shelve the question*. 3. to remove from active use or service. 4. to furnish with shelves. [1585-95; *v.* use of *SHELVE*(9)] —**shelv'er**, *n.*

—**Syn.** 2. defer, table, pigeonhole.

shelve (shel/), *v.i.* **shelved**, **shelv-ing**. to slope gradually. [1580-90; orig. uncert.; cf. *Fris skelf* not quite level]

shelves (shelvz/), *n.* *pl.* of **shelf**.

shelv-ing (shel/'ving/), *n.* 1. material for shelves. 2. shelves collectively. [1625-35; SHELVE + -ING]

Shem (shem), *n.* the eldest of the three sons of Noah. Gen. 10:21.

She-ma ('she mä', shmä), *n.* *Judaism*. a liturgical prayer, prominent in Jewish history and tradition, that is recited daily at the morning and evening services and expresses the Jewish people's ardent faith in and love of God. [*<* Heb *shema* 'listen']

She-mi-ni Atze-reth (she mä'nä at ser'es, -min'ä; *Seph. Heb.* she mä'nä ä tse'ret; *Ashk. Heb.* she mä'nä ä tsä'ria), a Jewish festival celebrated on the 22nd day of Tishri, being the 8th day of Sukkoth: marked by a memorial service for the dead and prayers for rain in Israel. Also, **Shem/ni Atze/ret**, **Shem/ni Atze/res**. [1900-05; < Heb *Shemini* 'eighth lit., eighth meeting']

Shem/ite (shem/'it/), *n.* a Semite. —**Shem/it-ic** (shem/'ik/), **Shem/it-ish** (shem/'i tish/), *adj.*

She-mo-neh Es-reh (Ashk. Heb. she mä'nä es'rä; *Seph. Heb.* she mä'nä es'rä), *Judaism*. the Amidah, consisting of 19 blessings, recited on days other than the Sabbath and holy days. [*shamoneh* 'esreh' eighteen (apphr. the number of blessings in earlier times)]

Shen-an-do-ah (shen/'än dö'e/), *n.* 1. a river flowing NE from N Virginia to the Potomac at Harpers Ferry, West Virginia. ab. 200 mi. (322 km) long. 2. a valley in N Virginia, between the Blue Ridge and Allegheny mountains: Civil War campaigns 1862-64.

Shen/ando/ah Na'tional Park, a national park in N Virginia, including part of the Blue Ridge mountain range. 302 sq. mi. (782 sq. km)

she-nan-i-gan (she nan'i gan/), *n.* *Informal*. 1. Usually, **shenanigans**. a mischief; prankishness: *Halloween shenanigans*. b. deceit; trickery. 2. a mischievous or deceitful trick. [1850-55, *Amer.*; of obscure orig.]

Shen Cong-wen (shun/'tsöng'wun/), born 1902, Chinese author. Also, **Wade-Giles**, **Shen Ts'ung-wen** (shun/'tsöng'wun/).

shend (shend/), *v.t.* **shent**, **shend-ing**. *Archaic*. 1. to put to shame. 2. to reproach or scold. 3. to destroy or injure; damage. [bef. 900; ME *sc(h)enden*, OE (*ge*)scendan (*c.* D *schenden*, G *schänden*), deriv. of *scand* shame, infamy]

Shen-si (shen/'se/; Chin. shun/'shé/), *n.* *Older Spell-ing*. Shaanxi.

Shen-stone (shen/'stan/), *n.* *William*, 1714-63, English poet.

Shen-yang (shun/'yäng/), *n.* *Pinyin*, **Wade-Giles**. a city in and the capital of Liaoning province, in NE China: cultural capital of Manchuria; battle 1905. 3,000,000. Formerly, **Fengtien**, **Mukden**.

She-ol (shé/'öl/), *n.* (in Hebrew theology) 1. the abode of the dead or of departed spirits. 2. (l.c.) hell. [1590-1600; < Heb *she'öl*]

Shep-ard (shep/'ard/), *n.* *Alan Bartlett, Jr.*, born 1923, U.S. astronaut: first American in space, May 5, 1961.

shep-herd (shep/'ard/), *n.* 1. a person who herds, tends, and guards sheep. 2. a person who protects, guides, or watches over a person or group of people. 3. a member of the clergy. 4. the Shepherd, Jesus Christ. 5. See **sheepdog**. —*vt.* 6. to tend or guard as a shepherd: *to shepherd the flock*. 7. to watch over carefully. [bef. 1050; ME *sheperde*, OE *scēpyrde*. See **SHEEP**, **HERD**] —**shep/herd-less**, *adj.* —**shep/herd-like**, *adj.* —**Syn.** 2. protector, guardian, defender, keeper.

Shep-herd (shep/'ard/), *n.* a male given name.

shep/herd dog. See **sheepdog**. [1400-50; late ME]

shep/herd-ess (shep/'er dis/), *n.* 1. a girl or woman who herds sheep. 2. a rural girl. [1350-1400; ME *shepherdesse*. See **SHEPHERD**, **-ESS**]

—**Usage**. See **-ess**.

Shep/herd King, any of the Hyksos kings.

shep/herd's check, 1. a pattern of even checks, used in a variety of fabrics. 2. a fabric having this pattern. Also called **shep/herd's plaid**. [1860-65]

shep/herd's pie, a baked dish of ground or diced meat with a crust of mashed potatoes. [1895-1900]

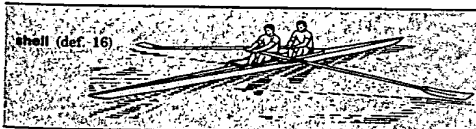
shep/herd's-purse (shep/'erdz pûrs/), *n.* a European weed, *Capsella bursa-pastoris*, having white flowers and purselike pods, naturalized in North America. [1400-50; late ME]

Shep/pard's correc/tion (shep/'ardz), *Statistics*. a method of correcting the bias in standard deviations and higher moments of distributions that arises from grouping values of the variable. Also called **Shep/pard's adjust/ment**. [named after William F. Sheppard (1863-1936), English statistician]

sheq-el (shek/'el/), *n.* shekel (def. 1).

sher-ard-ize (sher/'ar diz/), *v.t.* -ized, -iz-ing. *Metal.* to coat (steel) with a thin cladding of zinc by heating in a mixture of sand and powdered zinc. Also, *see*, *Brit.*, **sher/ard-ize**. [1900-05; after Sherard Cooper Coles (d. 1936), English inventor; see **-ize**]

CONCISE PRONUNCIATION KEY: act, çape, däre, pärt; set, equal; if, ice; ox, över, öder, oil, böök, bööt, out; up, ürge; child; sing; shoe; thin; that; zh as in treasure. æ = a as in alone, e as in system, i as in easily, o as in gallop, u as in circus; * as in fire (fi'r), hour (ou'r). l and n can serve as syllabic consonants, as in cradle (krädl'), and button (but'n). See the full key inside the front cover.



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